ADB

ERD WORKING PAPER SERIES NO. 12
ECONOMICS AND RESEARCH DEPARTMENT

Costs and Benefits of a Common Currency for ASEAN

Srinivasa Madhur

May 2002

Asian Development Bank

ERD Working Paper No. 12

COSTS AND BENEFITS OF A COMMON CURRENCY FOR ASEAN

Srinivasa Madhur

May 2002

Srinivasa Madhur is a Principal Economist with the Regional Economic Monitoring Unit of the Asian Development Bank. The views expressed here are those of the author and not necessarily those of the Asian Development Bank. Earlier versions of this paper were presented in the ASEAN Task Force on ASEAN Currency and Exchange Rate Mechanism meeting at Kuala Lumpur, 6-7 August 2001, and in the International Conference on Monetary Outlook on East Asia in an Integrating World Economy held at Chulalonghorn University, Bangkok, 5-6 September 2001.

Asian Development Bank
P.O. Box 789
0980 Manila
Philippines

May 2002
ISSN 1655-5252

Foreword

The ERD Working Paper Series is a forum for ongoing and recently completed research and policy studies undertaken in the Asian Development Bank or on its behalf. The Series is a quick-disseminating, informal publication meant to stimulate discussion and elicit feedback. Papers published under this Series could subsequently be revised for publication as articles in professional journals or chapters in books.

Contents

Abstract

Since the 1997 Asian financial crisis, a popular view among academic economists and policymakers is that developing countries with open capital accounts have only two options in their exchange rate regimes: either float the exchange rate freely or fix it hard. Within a fixed exchange rate regime, two variants can be conceived: (i) a currency board arrangement or its equivalent, the domestic usage of the currency of another country; and (ii) adoption of a new common currency by a group of countries, or the formation of a monetary union. This paper assesses the costs and benefits of the second variant for the Association of Southeast Asian Nations (ASEAN). The paper concludes that although the constraints on the adoption of a common currency by ASEAN are formidable, the long-run goal of a common currency for the region may be worth considering seriously, especially because, judged by the criterion of optimum currency area, the region is as suitable for the adoption of a common currency as Europe was prior to the Maastricht Treaty.

I. INTRODUCTION

The 1997 Asian financial crisis has brought into sharp focus questions about appropriate exchange rate regimes for the economies in the region. In the aftermath of the crisis, with the notable exception of Malaysia, many countries in the region have now shifted toward greater flexibility in their exchange rates, although, for various reasons including the “fear of floating”, official interventions in the foreign exchange market to stabilize rates are not uncommon. While these countries are experimenting with changes in the exchange rate regimes, a lively debate is continuing on the choice of appropriate exchange rate regimes for developing countries.

Since the Asian crisis, a popular view among academic economists and policymakers is that developing countries with open capital accounts have a bipolar solution to the exchange rate dilemma they face: a free float or a hard peg. This paper assesses the costs and benefits of a hard peg, specifically the use of a common currency or formation of a monetary union, for the Association of Southeast Asian Nations (ASEAN).

Given that the adoption of a common currency, or the formation of a currency union, was the last step in a sequence of policy initiatives toward regional economic integration in Europe that spanned more than four decades, the ASEAN may perhaps be a long way away from adopting a common currency. Yet, a debate on the adoption of a common currency by these countries is slowly emerging especially in the aftermath of the Asian crisis and after the single currency for Europe, the Euro, became a reality beginning 1999.

This paper aims to integrate and synthesize key conclusions in the literature and raise certain issues for further debate and research, rather than break new grounds through fresh research. The assessment is largely organized around some of the well-known results, both theoretical and empirical, of works on optimum currency area (OCA).

The paper is organized as follows. Section II presents the theoretical and empirical perspectives from the OCA literature. Section III examines the suitability of ASEAN for adoption of a common currency and Section IV assesses the key constraints on such adoption. Section V concludes by placing the issue in a broader global perspective.

II. PERSPECTIVES ON OPTIMUM CURRENCY AREA

According to the OCA literature, the key economic cost from formation of a currency union by a group of countries is the loss of national autonomy in monetary policy. Under a currency union, there is no scope for independent monetary policies by the member countries of the union. However, the cost associated with the loss of monetary independence depends upon how well the individual countries were conducting monetary policy prior to joining the currency union.

Many developing countries with open capital accounts have several constraints in the effective conduct of an independent monetary policy. This is especially so in developing countries with thin capital markets and weak central banking institutions. In general, the record of developing countries in conducting independent national monetary policies to minimize cyclical fluctuations in economic activity has been somewhat patchy. This suggests that the economic loss from giving up an independent monetary policy may not be very large for such countries. On the contrary, a currency union may, in fact, elicit commitment to greater macroeconomic stability from countries that otherwise have a mixed track record in implementing monetary policy prior to joining the currency union (Barro 2001). It is possible that this benefit will compensate for the loss of monetary policy autonomy.

The major benefit of a common currency that has been emphasized is that it facilitates trade (in both goods and services) and investment among the countries of the union (and hence increases income growth within the region) by reducing transaction costs in cross-border business, and removing volatility in exchange rates across the union. A currency is like language (Barro 2001). As a common language facilitates effective communication among people, a common currency could promote trade and investment among countries. In an environment of different currencies, transaction costs, including the costs of obtaining information about prices, would be higher. This would be a disincentive to trade, commerce, and investment.

Moreover, under floating exchange rate regimes—the alternative to a fixed exchange rate regime—exchange rates tend to be more volatile than is warranted by the economic fundamentals of an economy (Rose 1994, Williamson 1999, Bergsten and Henning 1996, Collignon 1999). This is especially true of small developing economies with thin capital markets. Developing countries with large unhedged foreign currency liabilities (original sin), therefore, often "fear to float." Monetary policies in such countries tend to be pro-cyclical rather than counter-cyclical**.** Belying the expectations of advocates of floating exchange rate regimes, flexible exchange rates have often become a source of shocks rather than shock absorbers. "Market errors" and the consequent misalignments in exchange rates under floating exchange rate regimes have been substantial (Breur 1994). Disproportionate volatility in exchange rates increases uncertainty, discourages trade, diminishes investment, and reduces overall economic growth (Kenen and Rodrik 1986, Huizinga 1994, Corbo and Cox 1995). It is possible to mitigate some of these adverse effects of floating exchange rates by hedging against exchange rate fluctuations. However, hedging involves non-negligible transaction costs (Adler 1996, Friberg 1996, Rajan 2000). Development of perfect hedging instruments may even be difficult in practice. This may explain why in a 1992 survey of nonfinancial Fortune companies, while 85 percent of the respondents hedged, only 22 percent hedged fully (Rajan 2000).

A common currency could mitigate some of these adverse effects of a floating exchange rate system. From a purely economic point of view, a set of countries should opt for a common currency if the cost of losing national autonomy in monetary policy is mitigated by the benefits of a currency union. While it is difficult to quantify these costs and benefits, the OCA literature offers some guidelines to compare them. The benefits of a currency union increase and/or the costs decrease with (i) greater flexibility in wages and prices among the countries of the union, (ii) greater mobility of factors of production (labor and capital) across countries, (iii) more symmetric shocks across countries, (iv) more openness among the economies within the union, and (iv) larger share of trade among the countries of the region.

A composite index of some of these determinants of the relative costs and benefits of a currency union, known as the OCA index, has been used to assess the suitability of a set of countries for adoption of a common currency. These OCA indicators should, however, be used with caution because they are not necessarily independent of the prevailing exchange rate regime (Eichengreen 1996, Frankel and Rose 1997, Rose 2000, Glick and Rose 2001). The OCA indicators, in other words, could be endogenous to the exchange rate regime. Endogeneity of the OCA indicators can arise due to a variety of reasons. Two of these deserve special mention.

First, to the extent that a common currency promotes greater trade among countries, openness and the volume of intra-union trade will be greater under a common currency than under a regime of floating exchange rates. This will make the degree of openness and the volume of intra-union trade endogenous to the exchange rate regime. Early estimates of the effect of exchange rate regimes on trade were generally small and modest at best (Kennen and Rodrik 1986, Huizinga 1994, Corbo and Cox 1995). However, more recent studies find substantial positive effect of a common currency regime on trade (Rose 2000, Glick and Rose 2001, and Rose and Wincoop 2001).

Second, the degree of flexibility of wages in the labor markets and the prices in the product markets are likely to be larger under a credible currency union than under a floating exchange rate regime. This is a broader application of the well-known Lucas principle that states that the very structure of an economy may be affected by changes in the policy regime. This is not to suggest that wages and prices will become perfectly flexible once exchange rates across countries are locked in, but that wage and price setters will adapt in order to avoid increases in unemployment to levels that would provoke resistance to continued participation in the currency union (Eichengreen 1996). Historical evidence tends to support such a market response. For example, the response of labor and product market prices to shocks was found to be faster under the gold standard than under monetary regimes characterized by greater exchange rate variability (Bayoumi and Eichengreen 1996).

III. THE SUITABILITY OF ASEAN FOR A COMMON CURRENCY

Is ASEAN suitable for adopting a common currency? While it is difficult to quantify the costs and benefits, applying the guidelines of the OCA literature shows there are several characteristics of the ASEAN that suggest that the benefits of a common currency may be significant relative to the costs.

In terms of the cost of giving up independent monetary policy, in practice, given the somewhat mixed track record of many of these countries in conducting monetary policy, the costs of surrendering monetary autonomy are unlikely to be large: At least some of them may perhaps be giving up something that they do not have! In fact, as a result of forming a currency union, there is a possibility that some of the countries that now have a patchy track record of inflation control and exchange rate management could benefit substantially from a monetary policy conducted by a more credible regional central bank. Such a convergence to best (or better) practices in monetary policy in the region will be a benefit, not a cost.

In terms of factor mobility, ASEAN compares favorably with the European Union (EU) at the time of the Maastricht Treaty. ASEAN has relatively high labor mobility as well as capital mobility (Goto and Hamada 1994; Eichengreen and Bayoumi 1999; Moon, Rhee, and Yoon 2000). For example, workers from Indonesia, Malaysia, Philippines, and Thailand account for 10 percent of the employment in Singapore. Emigration has been as much as 2 percent of the labor force of the sending countries.

Compared to the EU, ASEAN also ranks quite high in terms of wage and price flexibility. In fact, traditionally they are known for their flexibility and speed of adjustment to shocks. According to Bayoumi and Eichengreen (1994), almost all of the change in output and prices in response to a shock in East Asia takes place in about two years. By comparison, in Europe, only about half the adjustment occurs in the first two years after a shock. These results are consistent with the general impression that labor markets are more flexible in ASEAN than in Western Europe.

Many ASEAN countries have trade-to-GDP ratios as well as trade-intensity ratios (which normalize bilateral trade by the relative share of the countries in total world trade to eliminate size effects) that are higher than in Western Europe (Goto and Hamada 1994, Kawai and Takagi 2000). At close to 25 percent, the share of intraregional trade in ASEAN total trade, although lower than in the EU (40 percent), is significant and rising (Bayoumi and Mauro 1999). It is much higher than in some of the other currency unions such as the Eastern Carribean Currency Union (about 10 percent), the Western Africa Economic and Monetary Union (about 10 percent), and the Central African Economic and Monetary Community (about 3 percent).

Although there are intercountry differences, the symmetry in shocks among the countries in the region is comparable to the EU (Eichengreen and Bayoumi 1999). The regionwide economic slowdown in 2001 in response to the global economic downturn is another evidence of the high degree of shock symmetry among these countries. The high degree of shock symmetry reflects both the high degree of openness (export orientation, capital flows etc.) and the similarities in the production structures among these economies.

Overall, composite OCA indices for the region, which take into account intraregional trade, wage-price flexibility, labor mobility, and shock symmetry, are similar to those for the EU (Eichengreen and Bayoumi 1999). Using a variety of indicators drawn from the OCA literature, Eichengreen and Bayoumi conclude that from a purely economic perspective, East Asia/ASEAN is as suitable for an OCA as Europe was prior to the Maastricht Treaty.

IV. CONSTRAINTS ON THE ADOPTION OF A COMMON CURRENCY

None of the empirical evidences presented above should make one disregard some of the key constraints on locking in the exchange rates and adopting a common currency over the long run. Sustaining a common currency may be even more difficult than adopting it. Four constraints that have generally been mentioned in discussions are worth special attention: (i) diversity in the level of economic development across countries, (ii) weaknesses in the financial sectors of many countries, (iii) inadequacy of region-level resource pooling mechanisms and institutions required for forming and managing a currency union, and (iv) lack of political preconditions for monetary cooperation and a common currency.

The diversity in the level of economic development among the ASEAN countries is quite large. Singapore, the richest country in the group, has a per capita income close to 300 times the per capita income of Myanmar, the poorest country in the group. Even among the ASEAN–5 (Indonesia, Malaysia, Philippines, Singapore, and Thailand), the per capita income of Singapore is about 40 times the per capita income of Indonesia. This degree of diversity is higher than among the countries of the EU. It is sometimes argued that such a high degree of income differentials could make it difficult to sustain a monetary union among these countries. However, it is important to note that what is important for the adoption of a common currency among countries is that relative prices and outputs across them should have high co-movements following an economic shock, not so much that the levels of income should be more equal across them. For even if the countries in a monetary union have perfect equality of per capita incomes, if the co-movement of relative prices and outputs across countries is low, conducting a common monetary policy for the union as a whole is difficult. On the other hand, even if per capita incomes across countries in a monetary union are vastly different, but their co-movement following an economic shock is very high, conducting a common monetary policy is much less problematic. Income differentials across countries could pose a constraint to the conduct of a common monetary policy only to the extent that they reflect the dissimilarities in the production structures across countries (and hence movements in relative prices and outputs across them). However, it is important to note that some of the populous countries in the world, e.g., People's Republic of China (PRC), India, Indonesia, or United States, also exhibit large intraregional income differentials within them. Yet, each of these countries uses a single currency.

If countries with diverse subregions can adopt a common currency, why not a region with diverse countries? The answer perhaps lies in the fact that (i) labor and capital are freely mobile within a country (although formal labor mobility across subregions in the PRC are constrained by official restrictions), but are not necessarily so across countries; and (ii) the budget and fiscal policy can, within limits, be used to bring about inter-regional resource transfers within a country, another adjustment mechanism that is often difficult to operate across countries. To manage a currency union for a group of countries with a large difference in level of development, it is, therefore, important to allow a freer flow of capital and labor across borders. This is an area that would need concerted efforts by the ASEAN governments. Member countries will have to evolve policies and mechanisms that would allow greater mobility of both capital and labor across national borders, in addition to the freer movement of goods allowed under the free trade arrangement within the region.

As for fiscal policy, it is difficult to have a large centralized budget at the union level to make resource transfers across countries. The greater mobility of factors of production should reduce the need for large fiscal transfers over the medium to long term. However, in the short run labor mobility cannot be relied upon to take care of asymmetric shocks across countries in a currency union. Country-specific fiscal policies can be used to respond to asymmetric shocks across countries within the union. However, the scope for country-specific discretionary fiscal policies within a currency union would be limited if there is a ceiling on fiscal imbalances, as is the case in the European Union under the Stability and Growth Pact. Since historically fiscal irresponsibility has proven to be the waterloo of monetary cooperation many times, it is perhaps desirable to restrict fiscal autonomy within a currency union by using mechanisms similar to the European Union's Stability and Growth Pact, but with greater flexibility at the national level. One such option could be to allow automatic fiscal stabilizers at the national levels to move the fiscal balance in a counter-cyclical fashion (worsening during economic downturns and improving during economic upturns) but within certain broad limits.

One of the lessons from some of the emerging market financial crises is that when countries with weak banking and financial sectors and heavy dependence on foreign capital peg their exchange rates, banking problems could turn into an exchange rate crisis (Eichengreen and Bayoumi 1999). A weak banking system could, therefore, undermine an exchange rate regime such as a common currency arrangement. Historically, banking problems have not been as pervasive among the ASEAN countries as in other emerging market economies. Yet, the 1997 financial crisis in Asia has exposed the fragility of the banking systems and the financial sectors of many countries in the region. Despite the progress in financial sector restructuring in the aftermath of the crisis, the remaining agenda of banking reforms is quite large. Significant further reforms and restructuring of the financial sectors and the banking systems will, therefore, be required among the ASEAN countries before they could adopt a common currency. There is, however, a positive side to this challenge. A currency union among these countries, accompanied by a regional integration of financial services, could enable countries with stronger banking systems to specialize in the provision of these services at the regional level. That would lead to greater harmonization of banking and financial sector practices across countries as well as raise the overall banking and financial sector standards across the region.

Inadequate mechanisms for regional reserve pooling as well as the absence of regional institutions could be another set of constraints on monetary cooperation and common currency among the East Asian countries. The reserve sharing arrangements under the Chiang Mai Initiative constitute a modest beginning in addressing this constraint. Yet, a common currency for the region would require much greater reserve pooling and sharing among the countries than is currently possible under the Chiang Mai Initiative. Europe established a whole gamut of institutions such as the European Council, European Commission, and European Central Bank to manage regional resource sharing and to coordinate the monetary union. It took decades of experimentation in Europe to establish these institutions. Given the almost total absence of institutions to support regional monetary cooperation in East Asia, developing the regional institutions to manage a common currency is likely to be a major challenge. Once again, there is a positive side to this challenge: the region can benefit from decades of European experience. It can "leapfrog" in developing the regional reserve sharing mechanisms and the institutions, if there is enough political support for a regional currency union. That brings one to another key constraint: lack of political preconditions for a currency union in the ASEAN.

It is argued that while East Asia or the ASEAN may satisfy the economic requirements for an OCA as much as the EU does, it has not developed the political preconditions necessary for a common currency (Eichengren and Bayoumi 1999; Bayoumi, Eichengreen, and Mauro 2000). In Europe, the debate over monetary integration has gone hand in hand with discussions of political integration and creation of a supranational entity empowered to override sovereign national governments. At each stage of this political integration, national governments delegated a growing range of powers to the collectivity. Going by the European experience, developing political support and the institutions required for a currency union in the region, whether it is among ASEAN or among a broader group of countries, is likely to be a formidable challenge. One should not understate the difficulties of addressing this challenge. Yet, if the economic advantages of a regional monetary union are large, it is possible that countries may make political compromises so as to reap the economic benefits (Park 2001). Economic interests may persuade countries to set aside political differences and forge strategically beneficial political alliances. In other words, political support may not be exogenous to the economic outcomes, just as economic outcomes may not be independent of political factors. Economic and political integration in the region may, therefore, be a joint although gradual process spanning perhaps decades.

V. CONCLUSION

The issue of the costs and benefits of a common currency for the ASEAN needs to be placed in a somewhat global perspective. As Barro (2001) observes, three sets of factors are likely to encourage the initiation of currency unions across the globe in the future: (i) the increasing number of countries in the world; (ii) globalization; and (iii) the diminishing role of independent national monetary policies, especially for small countries.

At the end of World War II, there were 76 independent countries in the world. Today there are nearly 200. For many of the growing number of smaller countries, the costs of maintaining separate currencies and floating exchange rates are likely to be very high. For them, therefore, the net benefits from joining a monetary union (or simply using another country's currency) are likely to be significant (Barro 2001). This could encourage the formation of an increasing number of currency unions over time.

The increased pace of globalization (including the spread of trade in goods and services and financial transactions and the heightened diffusion of technology) is also likely to encourage the formation of currency unions. In an increasingly globalizing world, there is likely to be greater synchronization of business cycles across countries, and hence the net benefits of having fewer currencies to conduct cross-border business are likely to be larger. Moreover, as the world gets more integrated, the volume of transactions involving citizens of different countries will increase. As international transactions become a larger share of total global transactions, the attractiveness of common currencies relative to a multitude of sovereign currencies is likely to increase.

The benefit that economists and central bankers attribute to national monetary policies is also diminishing. There is growing skepticism about the usefulness of independent monetary policies, especially to smaller developing economies, for counter-cyclical stabilization purposes.

All these factors have the potential to increase political support for monetary and economic integration across countries. Overall, therefore, events may become more favorable to the formation of currency unions. Should the ASEAN be part of this likely global trend? It is time to ponder this question, even if one does not foresee a conclusive answer in the immediate future. For in case the answer turns out to be "yes", the challenges of forming an ASEAN currency union (or other regional groupings in Asia), including managing the transition phases, are likely to be formidable. The preparatory groundwork itself would involve considerable effort.

Going by international experience, the time required to complete the process is unlikely to be short either. Europe spent several decades in experimenting with regional monetary cooperation before adopting a monetary union. The task may be even more challenging for ASEAN. But it is important not to underestimate the Southeast Asian capacity for "time compression." During the last few decades, time and again, these countries have turned in economic achievements at an unprecedented speed. That record of achievement earned some of them the coveted title of miracle economies.

Despite the Asian crisis, the achievement of the ASEAN Free Trade Area (AFTA) in early 2002, much in advance of the original deadline of 2008, is yet another pointer to their capacity for "time compression." With the launching of the AFTA, ASEAN countries have crossed an important milestone: moving closer to what some would refer to as the "good neighbors' stage" of regionalism, in which participating countries abolish trade barriers and create a level playing field for cross-border movement of goods, services, and capital, but allow the pursuit of separate national economic agendas in other areas, especially in the areas of fiscal and monetary policies.

It is certainly a very challenging task for the ASEAN to move from the "good neighbors' stage" to the European "happy family stage" of regionalism, in which participating countries also share a common currency; free flow of people across borders; and common institutions, both economic and political, which are required to manage the common currency. But, as is well known, regional monetary integration, by its very nature, is a long process involving a series of small, incremental, steps over time. Viewed from this perspective, the launching of the AFTA and the regional resource sharing arrangements under the Chiang Mai Initiative may perhaps possess the potential to gradually lead to greater regional monetary cooperation. Moreover, the ASEAN countries have the European experience behind them, and that could be an added advantage.

REFERENCES

Adler, M., 1996. “Exchange Rate Planning for International Trading Firm.” In Y. Amihud and R. Levich, eds., *Exchange Rates and Corporate Performance*. New York: Irwin Professional Publishing.

Barro, R., 2001. “Currency Unions.” Unpublished monograph. Harvard University.

Bayoumi, T., and B. Eichengreen, 1994. “One Money or Many? Analyzing the Prospects for Monetary Unification in Various Parts of the World.” *Princeton Studies in International Finance* 76:20-30.

———, 1996. “The Stability of the Gold Standard and the Evolution of the International Monetary System.” in T. Bayoumi, B. Eichengreen, and M. Taylor, eds., *Economic Perspectives in the Gold Standard.* Cambridge: Cambridge University Press.

Bayoumi, T., and P. Mauro, 1999. The Suitability of ASEAN for a Regional Currency Arrangement. Working Paper 99/162, International Monetary Fund, Washington D.C.

Bayoumi, T., B. Eichengreen, and P. Mauro, 2000. “On Regional Monetary Arrangements for ASEAN.” *Journal of the Japanese and International Economies* 4(June)121-48.

Benassy-Quere, A., 1999. “Optimal Pegs for East Asian Currencies.” *Journal of the Japanese and International Economies* 13(March):44-60.

Bergsten, C. F., and C. R. Henning, 1996. “Global Economic Leadership and the Group of Seven.” Institute for International Economics, Washington D.C.

Breur, J. B., 1994. “An Assessment of the Evidence on Purchasing Power Parity.” In J. Williamson, ed., *Estimating Equilibrium Exchange Rates.* Institute for International Economics, Washington D.C.

Collignon, S., 1999. “Bloc Floating and Exchange Rate Volatility: The Causes and Consequences of Currency Blocs.” In S. Collignon, J. Pisani-Ferry, and Y. C. Park, eds., *Exchange Rate Policies in Emerging Asian Countries.* London and New York: Routledge.

Corbo, V., and V. Cox, 1995. “Exchange Rate Volatility, Investment and Growth: Some New Evidence.” In W. Gruben, D. Gould, and C. Zarazaga, eds., *Exchange Rates, Capital Flows, and Monetary Policy in a Changing World Economy*. Boston: Kluwer Academic Press.

DeGrauwe, P., 2000. *Economics of Monetary Union*. Oxford: Oxford University Press.

Eichengreen, B., 1996. “A More Perfect Union? The Logic of Economic Integration.” *Essays in*

International Finance. International Finance Section, Department of Economics, Princeton University.

Eichengreen B., and T. Bayoumi, 1999. "Is Asia an Optimum Currency Area? Can It Become One?" In S. Collignon, J. Pisani-Ferry, and Y. C. Park, eds., *Exchange Rate Policies in Emerging Asian Countries.* London: Routledge.

Frankel, J., and A. Rose, 1997. "The Endogeneity of the Optimum Currency Area Criteria." In M. Blejer, J. Frenkel, L. Leiderman, and A. Razin, eds., *Optimum Currency Areas*: *New Analytical and Policy Developments.* International Monetary Fund, Washington, D C.

Friberg, R., 1996. Exchange Rate Uncertainty and the Microeconomic Benefits of EMU. Working Paper No. 127, The Economic Research Institute, Stockholm School of Economics.

Glick, R., and A. Rose, 2001. "Does a Currency Union Affect Trade? The Time Series Evidence." Unpublished monograph.

Goto, J., and K. Hamada, 1994. "Economic Preconditions for Asian Regional Integration." In T. Ito and A. Krueger, eds., *Macroeconomic Linkage: Savings, Exchange Rates and Capital Flows.* Chicago: University of Chicago Press.

Huizinga, J., 1994. "Exchange Rate Volatility, Uncertainty and Investment: An Empirial Investigation." In C. Leiderman and A. Razin, eds., *Capital Mobility: The Impact on Consumption, Investment and Growth*. Cambridge: Cambridge University Press.

Kawai, M., and S. Takagi, 2000. Proposed Strategy for a Regional Exchange Rate Arrangement in Post-Crisis Asia: Analysis, Reviews and Proposal. Policy Research Working Paper No. 2503, World Bank, Washington, D.C.

Kenen, P., and D. Rodrick, 1986. "Measuring and Analyzing the Effects of Short-Term Volatility in Real Exchange Rates." *Review of Economic Statistics* 68(2):311-315.

Kwan, C. H., 1998. "The Theory of Optimum Currency Areas and the Possibility of Forming a Yen Bloc in Asia." Nomura Research Institute. Mimeo.

Moon, W. S., and Y. Rhee, 1999. "Asian Monetary Cooperation: Lessons from the European Monetary Integration." *Journal of International and Area Studies* 6(1,May).

Moon, W. S., Y. Rhee, and D. R. Yoon, 2000. "Asian Monetary Cooperation: A Search for Regional Monetary Stability in the Post euro and the Post Asian Crisis Era." *Economic Papers* 3(1):159-93.

Park, Y. C., 2001. "Beyond the Chiang Mai Initiative Rationale and Need for a Regional Monetary Arrangement in East Asia." Unpublished monograph. Department of Economics, Korea University.

Plummer, M., 2001. "Monetary Union and Asian," International Conference on Trade and Monetary System in Asia-Pacific." Kobe, Japan.

Rajan, R., 2000. Currency Basket Regimes for Southeast Asia: The Worst System with Exception of All Others. Policy DP No. 0028, Centre for International Economic Studies, Adelaide, Australia.

Rose, A., 1994. "Are Exchange Rates Macroeconomic Phenomena." *Federal Reserve Bank of San Francisco Economic Review* 1:19-30.

———, 2000. “One Money, One Market: Estimating the Effect of Common Currencies on Trade.” *Economic Policy* 30:7-46.

Rose, A., and E. van Wincoop, 2001. “National Money as a Barrier to International Trade: The Real Case for Currency Union.” *American Economic Review* May:386-90.

Williamson, J., 1999. “The Case for a Common Basket Peg for East Asian Currencies.” In S. Collignon, J. Pisani-Ferry, and Y. C. Park, eds., *Exchange Rate Policies in Emerging Asian Countries*. London and New York: Routledge.

PUBLICATIONS FROM THE ECONOMICS AND RESEARCH DEPARTMENT

ERD TECHNICAL NOTE SERIES (TNS)

(Published in-house; Available through ADB Office of External Relations; Free of Charge)

No. 1 Contingency Calculations for Environmental Impacts with Unknown Monetary Values
—David Dole
February 2002

ERD WORKING PAPER SERIES (WPS)

(Published in-house; Available through ADB Office of External Relations; Free of Charge)

No. 1 Capitalizing on Globalization
—Barry Eichengreen, January 2002

No. 2 Policy-based Lending and Poverty Reduction: An Overview of Processes, Assessment and Options
—Richard Bolt and Manabu Fujimura
January 2002

No. 3 The Automotive Supply Chain: Global Trends and Asian Perspectives
—Francisco Veloso and Rajiv Kumar
January 2002

No. 4 International Competitiveness of Asian Firms: An Analytical Framework
—Rajiv Kumar and Doren Chadee
February 2002

No. 5 The International Competitiveness of Asian Economies in the Apparel Commodity Chain
—Gary Gereffi
February 2002

No. 6 Monetary and Financial Cooperation in East Asia—The Chiang Mai Initiative and Beyond
—Pradumna B. Rana
February 2002

No. 7 Probing Beneath Cross-national Averages: Poverty, Inequality, and Growth in the Philippines
—Arsenio M. Balisacan and Ernesto M. Pernia
March 2002

No. 8 Poverty, Growth, and Inequality in Thailand
—Anil B. Deolalikar
April 2002

No. 9 Microfinance in Northeast Thailand: Who Benefits and How Much?
—Brett E. Coleman
April 2002

No. 10 PovertyReduction and the Role of Institutions in Developing Asia
—Anil B. Deolalikar, Alex B. Brilliantes, Jr., Raghav Gaiha, Ernesto M. Pernia, Mary Racelis with the assistance of Marita Concepcion Castro-Guevara, Liza L. Lim, Pilipinas F. Quising
May 2002

No. 11 The European Social Model: Lessons for Developing Countries
—Assar Lindbeck
May 2002

No. 12 Costs and Benefits of a Common Currency for ASEAN
—Srinivasa Madhur
May 2002

MONOGRAPH SERIES

(Published in-house; Available through ADB Office of External Relations; Free of charge)

EDRC REPORT SERIES (ER)

No. 1 ASEAN and the Asian Development Bank
—Seiji Naya, April 1982

No. 2 Development Issues for the Developing East and Southeast Asian Countries and International Cooperation
—Seiji Naya and Graham Abbott, April 1982

No. 3 Aid, Savings, and Growth in the Asian Region
—J. Malcolm Dowling and Ulrich Hiemenz,
April 1982

No. 4 Development-oriented Foreign Investment and the Role of ADB
—Kiyoshi Kojima, April 1982

No. 5 The Multilateral Development Banks and the International Economy's Missing Public Sector
—John Lewis, June 1982

No. 6 Notes on External Debt of DMCs
—Evelyn Go, July 1982

No. 7 Grant Element in Bank Loans
—Dal Hyun Kim, July 1982

No. 8 Shadow Exchange Rates and Standard Conversion Factors in Project Evaluation
—Peter Warr, September 1982

No. 9 Small and Medium-Scale Manufacturing Establishments in ASEAN Countries: Perspectives and Policy Issues
—Mathias Bruch and Ulrich Hiemenz,
January 1983

No. 10 A Note on the Third Ministerial Meeting of GATT
—Jungsoo Lee, January 1983

No. 11 Macroeconomic Forecasts for the Republic of China, Hong Kong, and Republic of Korea
—J.M. Dowling, January 1983

No. 12 ASEAN: Economic Situation and Prospects
—Seiji Naya, March 1983

No. 13 The Future Prospects for the Developing Countries of Asia
—Seiji Naya, March 1983

No. 14 Energy and Structural Change in the Asia-Pacific Region, Summary of the Thirteenth

Pacific Trade and Development Conference
—*Seiji Naya, March 1983*

No. 15 A Survey of Empirical Studies on Demand for Electricity with Special Emphasis on Price Elasticity of Demand
—*Wisarn Pupphavesa, June 1983*

No. 16 Determinants of Paddy Production in Indonesia: 1972-1981–A Simultaneous Equation Model Approach
—*T.K. Jayaraman, June 1983*

No. 17 The Philippine Economy: Economic Forecasts for 1983 and 1984
—*J.M. Dowling, E. Go, and C.N. Castillo, June 1983*

No. 18 Economic Forecast for Indonesia
—*J.M. Dowling, H.Y. Kim, Y.K. Wang, and C.N. Castillo, June 1983*

No. 19 Relative External Debt Situation of Asian Developing Countries: An Application of Ranking Method
—*Jungsoo Lee, June 1983*

No. 20 New Evidence on Yields, Fertilizer Application, and Prices in Asian Rice Production
—*William James and Teresita Ramirez, July 1983*

No. 21 Inflationary Effects of Exchange Rate Changes in Nine Asian LDCs
—*Pradumna B. Rana and J. Malcolm Dowling, Jr., December 1983*

No. 22 Effects of External Shocks on the Balance of Payments, Policy Responses, and Debt Problems of Asian Developing Countries
—*Seiji Naya, December 1983*

No. 23 Changing Trade Patterns and Policy Issues: The Prospects for East and Southeast Asian Developing Countries
—*Seiji Naya and Ulrich Hiemenz, February 1984*

No. 24 Small-Scale Industries in Asian Economic Development: Problems and Prospects
—*Seiji Naya, February 1984*

No. 25 A Study on the External Debt Indicators Applying Logit Analysis
—*Jungsoo Lee and Clarita Barretto, February 1984*

No. 26 Alternatives to Institutional Credit Programs in the Agricultural Sector of Low-Income Countries
—*Jennifer Sour, March 1984*

No. 27 Economic Scene in Asia and Its Special Features
—*Kedar N. Kohli, November 1984*

No. 28 The Effect of Terms of Trade Changes on the Balance of Payments and Real National Income of Asian Developing Countries
—*Jungsoo Lee and Lutgarda Labios, January 1985*

No. 29 Cause and Effect in the World Sugar Market: Some Empirical Findings 1951-1982
—*Yoshihiro Iwasaki, February 1985*

No. 30 Sources of Balance of Payments Problem in the 1970s: The Asian Experience
—*Pradumna Rana, February 1985*

No. 31 India's Manufactured Exports: An Analysis of Supply Sectors
—*Ifzal Ali, February 1985*

No. 32 Meeting Basic Human Needs in Asian Developing Countries
—*Jungsoo Lee and Emma Banaria, March 1985*

No. 33 The Impact of Foreign Capital Inflow on Investment and Economic Growth in Developing Asia
—*Evelyn Go, May 1985*

No. 34 The Climate for Energy Development in the Pacific and Asian Region: Priorities and Perspectives
—*V.V. Desai, April 1986*

No. 35 Impact of Appreciation of the Yen on Developing Member Countries of the Bank
—*Jungsoo Lee, Pradumna Rana, and Ifzal Ali, May 1986*

No. 36 Smuggling and Domestic Economic Policies in Developing Countries
—*A.H.M.N. Chowdhury, October 1986*

No. 37 Public Investment Criteria: Economic Internal Rate of Return and Equalizing Discount Rate
—*Ifzal Ali, November 1986*

No. 38 Review of the Theory of Neoclassical Political Economy: An Application to Trade Policies
—*M.G. Quibria, December 1986*

No. 39 Factors Influencing the Choice of Location: Local and Foreign Firms in the Philippines
—*E.M. Pernia and A.N. Herrin, February 1987*

No. 40 A Demographic Perspective on Developing Asia and Its Relevance to the Bank
—*E.M. Pernia, May 1987*

No. 41 Emerging Issues in Asia and Social Cost Benefit Analysis
—*I. Ali, September 1988*

No. 42 Shifting Revealed Comparative Advantage: Experiences of Asian and Pacific Developing Countries
—*P.B. Rana, November 1988*

No. 43 Agricultural Price Policy in Asia: Issues and Areas of Reforms
—*I. Ali, November 1988*

No. 44 Service Trade and Asian Developing Economies
—*M.G. Quibria, October 1989*

No. 45 A Review of the Economic Analysis of Power Projects in Asia and Identification of Areas of Improvement
—*I. Ali, November 1989*

No. 46 Growth Perspective and Challenges for Asia: Areas for Policy Review and Research
—*I. Ali, November 1989*

No. 47 An Approach to Estimating the Poverty Alleviation Impact of an Agricultural Project
—*I. Ali, January 1990*

No. 48 Economic Growth Performance of Indonesia, the Philippines, and Thailand: The Human Resource Dimension
—*E.M. Pernia, January 1990*

No. 49 Foreign Exchange and Fiscal Impact of a Project: A Methodological Framework for Estimation
—*I. Ali, February 1990*

No. 50 Public Investment Criteria: Financial and Economic Internal Rates of Return
—*I. Ali, April 1990*

No. 51 Evaluation of Water Supply Projects: An Economic Framework
—*Arlene M. Tadle, June 1990*

No. 52 Interrelationship Between Shadow Prices, Project Investment, and Policy Reforms: An Analytical Framework
—*I. Ali, November 1990*

No. 53 Issues in Assessing the Impact of Project and Sector Adjustment Lending
—*I. Ali, December 1990*

No. 54 Some Aspects of Urbanization and the Environment in Southeast Asia
—*Ernesto M. Pernia, January 1991*

No. 55 Financial Sector and Economic Development: A Survey
—*Jungsoo Lee, September 1991*

No. 56 A Framework for Justifying Bank-Assisted Education Projects in Asia: A Review of the Socioeconomic Analysis and Identification of Areas of Improvement
—*Etienne Van De Walle, February 1992*

No. 57 Medium-term Growth-Stabilization Relationship in Asian Developing Countries and Some Policy Considerations

—*Yun-Hwan Kim, February 1993*

No. 58 Urbanization, Population Distribution, and Economic Development in Asia
—*Ernesto M. Pernia, February 1993*

No. 59 The Need for Fiscal Consolidation in Nepal: The Results of a Simulation
—*Filippo di Mauro and Ronald Antonio Butiong, July 1993*

No. 60 A Computable General Equilibrium Model of Nepal
—*Timothy Buehrer and Filippo di Mauro, October 1993*

No. 61 The Role of Government in Export Expansion in the Republic of Korea: A Revisit
—*Yun-Hwan Kim, February 1994*

No. 62 Rural Reforms, Structural Change, and Agricultural Growth in the People's Republic of China
—*Bo Lin, August 1994*

No. 63 Incentives and Regulation for Pollution Abatement with an Application to Waste Water Treatment
—*Sudipto Mundle, U. Shankar, and Shekhar Mehta, October 1995*

No. 64 Saving Transitions in Southeast Asia
—*Frank Harrigan, February 1996*

No. 65 Total Factor Productivity Growth in East Asia: A Critical Survey
—*Jesus Felipe, September 1997*

No. 66 Foreign Direct Investment in Pakistan: Policy Issues and Operational Implications
—*Ashfaque H. Khan and Yun-Hwan Kim, July 1999*

No. 67 Fiscal Policy, Income Distribution and Growth
—*Sailesh K. Jha, November 1999*

ECONOMIC STAFF PAPERS (ES)

No. 1 International Reserves: Factors Determining Needs and Adequacy
—*Evelyn Go, May 1981*

No. 2 Domestic Savings in Selected Developing Asian Countries
—*Basil Moore, assisted by A.H.M. Nuruddin Chowdhury, September 1981*

No. 3 Changes in Consumption, Imports and Exports of Oil Since 1973: A Preliminary Survey of the Developing Member Countries of the Asian Development Bank
—*Dal Hyun Kim and Graham Abbott, September 1981*

No. 4 By-Passed Areas, Regional Inequalities, and Development Policies in Selected Southeast Asian Countries
—*William James, October 1981*

No. 5 Asian Agriculture and Economic Development
—*William James, March 1982*

No. 6 Inflation in Developing Member Countries: An Analysis of Recent Trends
—*A.H.M. Nuruddin Chowdhury and J. Malcolm Dowling, March 1982*

No. 7 Industrial Growth and Employment in Developing Asian Countries: Issues and Perspectives for the Coming Decade
—*Ulrich Hiemenz, March 1982*

No. 8 Petrodollar Recycling 1973-1980. Part 1: Regional Adjustments and the World Economy
—*Burnham Campbell, April 1982*

No. 9 Developing Asia: The Importance of Domestic Policies
—*Economics Office Staff under the direction of Seiji Naya, May 1982*

No. 10 Financial Development and Household Savings: Issues in Domestic Resource Mobilization in Asian Developing Countries
—*Wan-Soon Kim, July 1982*

No. 11 Industrial Development: Role of Specialized Financial Institutions
—*Kedar N. Kohli, August 1982*

No. 12 Petrodollar Recycling 1973-1980. Part II: Debt Problems and an Evaluation of Suggested Remedies
—*Burnham Campbell, September 1982*

No. 13 Credit Rationing, Rural Savings, and Financial Policy in Developing Countries
—*William James, September 1982*

No. 14 Small and Medium-Scale Manufacturing Establishments in ASEAN Countries: Perspectives and Policy Issues
—*Mathias Bruch and Ulrich Hiemenz, March 1983*

No. 15 Income Distribution and Economic Growth in Developing Asian Countries
—*J. Malcolm Dowling and David Soo, March 1983*

No. 16 Long-Run Debt-Servicing Capacity of Asian Developing Countries: An Application of Critical Interest Rate Approach
—*Jungsoo Lee, June 1983*

No. 17 External Shocks, Energy Policy, and Macroeconomic Performance of Asian Developing Countries: A Policy Analysis
—*William James, July 1983*

No. 18 The Impact of the Current Exchange Rate System on Trade and Inflation of Selected Developing Member Countries
—*Pradumna Rana, September 1983*

No. 19 Asian Agriculture in Transition: Key Policy Issues
—*William James, September 1983*

No. 20 The Transition to an Industrial Economy in Monsoon Asia
—*Harry T. Oshima, October 1983*

No. 21 The Significance of Off-Farm Employment and Incomes in Post-War East Asian Growth
—*Harry T. Oshima, January 1984*

No. 22 Income Distribution and Poverty in Selected Asian Countries
—*John Malcolm Dowling, Jr., November 1984*

No. 23 ASEAN Economies and ASEAN Economic Cooperation
—*Narongchai Akrasanee, November 1984*

No. 24 Economic Analysis of Power Projects
—*Nitin Desai, January 1985*

No. 25 Exports and Economic Growth in the Asian Region
—*Pradumna Rana, February 1985*

No. 26 Patterns of External Financing of DMCs
—*E. Go, May 1985*

No. 27 Industrial Technology Development the Republic of Korea
—*S.Y. Lo, July 1985*

No. 28 Risk Analysis and Project Selection: A Review of Practical Issues
—*J.K. Johnson, August 1985*

No. 29 Rice in Indonesia: Price Policy and Comparative Advantage
—*I. Ali, January 1986*

No. 30 Effects of Foreign Capital Inflows

on Developing Countries of Asia
—Jungsoo Lee, Pradumna B. Rana, and Yoshihiro Iwasaki, April 1986

No. 31 Economic Analysis of the Environmental Impacts of Development Projects
—John A. Dixon et al., EAPI, East-West Center, August 1986

No. 32 Science and Technology for Development: Role of the Bank
—Kedar N. Kohli and Ifzal Ali, November 1986

No. 33 Satellite Remote Sensing in the Asian and Pacific Region
—Mohan Sundara Rajan, December 1986

No. 34 Changes in the Export Patterns of Asian and Pacific Developing Countries: An Empirical Overview
—Pradumna B. Rana, January 1987

No. 35 Agricultural Price Policy in Nepal
—Gerald C. Nelson, March 1987

No. 36 Implications of Falling Primary Commodity Prices for Agricultural Strategy in the Philippines
—Ifzal Ali, September 1987

No. 37 Determining Irrigation Charges: A Framework
—Prabhakar B. Ghate, October 1987

No. 38 The Role of Fertilizer Subsidies in Agricultural Production: A Review of Select Issues
—M.G. Quibria, October 1987

No. 39 Domestic Adjustment to External Shocks in Developing Asia
—Jungsoo Lee, October 1987

No. 40 Improving Domestic Resource Mobilization through Financial Development: Indonesia
—Philip Erquiaga, November 1987

No. 41 Recent Trends and Issues on Foreign Direct Investment in Asian and Pacific Developing Countries
—P.B. Rana, March 1988

No. 42 Manufactured Exports from the Philippines: A Sector Profile and an Agenda for Reform
—I. Ali, September 1988

No. 43 A Framework for Evaluating the Economic Benefits of Power Projects
—I. Ali, August 1989

No. 44 Promotion of Manufactured Exports in Pakistan
—Jungsoo Lee and Yoshihiro Iwasaki, September 1989

No. 45 Education and Labor Markets in Indonesia: A Sector Survey
—Ernesto M. Pernia and David N. Wilson, September 1989

No. 46 Industrial Technology Capabilities and Policies in Selected ADCs
—Hiroshi Kakazu, June 1990

No. 47 Designing Strategies and Policies for Managing Structural Change in Asia
—Ifzal Ali, June 1990

No. 48 The Completion of the Single European Community Market in 1992: A Tentative Assessment of its Impact on Asian Developing Countries
—J.P. Verbiest and Min Tang, June 1991

No. 49 Economic Analysis of Investment in Power Systems
—Ifzal Ali, June 1991

No. 50 External Finance and the Role of Multilateral Financial Institutions in South Asia: Changing Patterns, Prospects, and Challenges
—Jungsoo Lee, November 1991

No. 51 The Gender and Poverty Nexus: Issues and Policies
—M.G. Quibria, November 1993

No. 52 The Role of the State in Economic Development: Theory, the East Asian Experience, and the Malaysian Case
—Jason Brown, December 1993

No. 53 The Economic Benefits of Potable Water Supply Projects to Households in Developing Countries
—Dale Whittington and Venkateswarlu Swarna, January 1994

No. 54 Growth Triangles: Conceptual Issues and Operational Problems
—Min Tang and Myo Thant, February 1994

No. 55 The Emerging Global Trading Environment and Developing Asia
—Arvind Panagariya, M.G. Quibria, and Narhari Rao, July 1996

No. 56 Aspects of Urban Water and Sanitation in the Context of Rapid Urbanization in Developing Asia
—Ernesto M. Pernia and Stella LF. Alabastro, September 1997

No. 57 Challenges for Asia's Trade and Environment
—Douglas H. Brooks, January 1998

No. 58 Economic Analysis of Health Sector Projects-A Review of Issues, Methods, and Approaches
—Ramesh Adhikari, Paul Gertler, and Anneli Lagman, March 1999

No. 59 The Asian Crisis: An Alternate View
—Rajiv Kumar and Bibek Debroy, July 1999

No. 60 Social Consequences of the Financial Crisis in Asia
—James C. Knowles, Ernesto M. Pernia, and Mary Racelis, November 1999

OCCASIONAL PAPERS (OP)

No. 1 Poverty in the People's Republic of China: Recent Developments and Scope for Bank Assistance
—K.H. Moinuddin, November 1992

No. 2 The Eastern Islands of Indonesia: An Overview of Development Needs and Potential
—Brien K. Parkinson, January 1993

No. 3 Rural Institutional Finance in Bangladesh and Nepal: Review and Agenda for Reforms
—A.H.M.N. Chowdhury and Marcelia C. Garcia, November 1993

No. 4 Fiscal Deficits and Current Account Imbalances of the South Pacific Countries: A Case Study of Vanuatu
—T.K. Jayaraman, December 1993

No. 5 Reforms in the Transitional Economies of Asia
—Pradumna B. Rana, December 1993

No. 6 Environmental Challenges in the People's Republic of China and Scope for Bank Assistance
—Elisabetta Capannelli and Omkar L. Shrestha, December 1993

No. 7 Sustainable Development Environment and Poverty Nexus
—K.F. Jalal, December 1993

No. 8 Intermediate Services and Economic Development: The Malaysian Example
—Sutanu Behuria and Rahul Khullar, May 1994

No. 9 Interest Rate Deregulation: A Brief Survey of the Policy Issues and the Asian Experience
—Carlos J. Glower, July 1994

No. 10 Some Aspects of Land Administration in Indonesia: Implications for Bank Operations
—Sutanu Behuria, July 1994

No. 11 Demographic and Socioeconomic Determinants of Contraceptive Use among Urban Women in the Melanesian Countries in the South Pacific: A Case Study of Port Vila Town in Vanuatu
—T.K. Jayaraman, February 1995

No. 12 Managing Development through Institution Building
— Hilton L. Root, October 1995

No. 13 Growth, Structural Change, and Optimal Poverty Interventions
—Shiladitya Chatterjee, November 1995

No. 14 Private Investment and Macroeconomic Environment in the South Pacific Island Countries: A Cross-Country Analysis
—T.K. Jayaraman, October 1996

No. 15 The Rural-Urban Transition in Viet Nam: Some Selected Issues
—Sudipto Mundle and Brian Van Arkadie, October 1997

No. 16 A New Approach to Setting the Future Transport Agenda
—Roger Allport, Geoff Key, and Charles Melhuish June 1998

No. 17 Adjustment and Distribution: The Indian Experience
—Sudipto Mundle and V.B. Tulasidhar, June 1998

No. 18 Tax Reforms in Viet Nam: A Selective Analysis
—Sudipto Mundle, December 1998

No. 19 Surges and Volatility of Private Capital Flows to Asian Developing Countries: Implications for Multilateral Development Banks
—Pradumna B. Rana, December 1998

No. 20 The Millennium Round and the Asian Economies: An Introduction
—Dilip K. Das, October 1999

No. 21 Occupational Segregation and the Gender Earnings Gap
—Joseph E. Zveglich, Jr. and Yana van der Meulen Rodgers, December 1999

No. 22 Information Technology: Next Locomotive of Growth?
—Dilip K. Das, June 2000

STATISTICAL REPORT SERIES (SR)

No. 1 Estimates of the Total External Debt of the Developing Member Countries of ADB: 1981-1983
—I.P. David, September 1984

No. 2 Multivariate Statistical and Graphical Classification Techniques Applied to the Problem of Grouping Countries
—I.P. David and D.S. Maligalig, March 1985

No. 3 Gross National Product (GNP) Measurement Issues in South Pacific Developing Member Countries of ADB
—S.G. Tiwari, September 1985

No. 4 Estimates of Comparable Savings in Selected DMCs
—Hananto Sigit, December 1985

No. 5 Keeping Sample Survey Design and Analysis Simple
—I.P. David, December 1985

No. 6 External Debt Situation in Asian Developing Countries
—I.P. David and Jungsoo Lee, March 1986

No. 7 Study of GNP Measurement Issues in the South Pacific Developing Member Countries. Part I: Existing National Accounts of SPDMCs–Analysis of Methodology and Application of SNA Concepts
—P. Hodgkinson, October 1986

No. 8 Study of GNP Measurement Issues in the South Pacific Developing Member Countries. Part II: Factors Affecting Intercountry Comparability of Per Capita GNP
—P. Hodgkinson, October 1986

No. 9 Survey of the External Debt Situation in Asian Developing Countries, 1985
—Jungsoo Lee and I.P. David, April 1987

No. 10 A Survey of the External Debt Situation in Asian Developing Countries, 1986
—Jungsoo Lee and I.P. David, April 1988

No. 11 Changing Pattern of Financial Flows to Asian and Pacific Developing Countries
—Jungsoo Lee and I.P. David, March 1989

No. 12 The State of Agricultural Statistics in Southeast Asia
—I.P. David, March 1989

No. 13 A Survey of the External Debt Situation in Asian and Pacific Developing Countries: 1987-1988
—Jungsoo Lee and I.P. David, July 1989

No. 14 A Survey of the External Debt Situation in Asian and Pacific Developing Countries: 1988-1989
—Jungsoo Lee, May 1990

No. 15 A Survey of the External Debt Situation in Asian and Pacific Developing Countrie s: 1989-1992
—Min Tang, June 1991

No. 16 Recent Trends and Prospects of External Debt Situation and Financial Flows to Asian and Pacific Developing Countries
—Min Tang and Aludia Pardo, June 1992

No. 17 Purchasing Power Parity in Asian Developing Countries: A Co-Integration Test
—Min Tang and Ronald Q. Butiong, April 1994

No. 18 Capital Flows to Asian and Pacific Developing Countries: Recent Trends and Future Prospects
—Min Tang and James Villafuerte, October 1995

SPECIAL STUDIES, COMPLIMENTARY (SSC)

(Published in-house; Available through ADB Office of External Relations; Free of Charge)

1. Improving Domestic Resource Mobilization Through Financial Development: Overview *September 1985*
2. Improving Domestic Resource Mobilization Through Financial Development: Bangladesh *July 1986*
3. Improving Domestic Resource Mobilization Through Financial Development: Sri Lanka *April 1987*
4. Improving Domestic Resource Mobilization Through Financial Development: India *December 1987*
5. Financing Public Sector Development Expenditure in Selected Countries: Overview *January 1988*
6. Study of Selected Industries: A Brief Report *April 1988*
7. Financing Public Sector Development Expenditure in Selected Countries: Bangladesh *June 1988*
8. Financing Public Sector Development Expenditure in Selected Countries: India *June 1988*
9. Financing Public Sector Development Expenditure in Selected Countries: Indonesia *June 1988*
10. Financing Public Sector Development Expenditure in Selected Countries: Nepal *June 1988*
11. Financing Public Sector Development Expenditure in Selected Countries: Pakistan *June 1988*
12. Financing Public Sector Development Expenditure in Selected Countries: Philippines *June 1988*
13. Financing Public Sector Development Expenditure in Selected Countries: Thailand *June 1988*
14. Towards Regional Cooperation in South Asia: ADB/EWC Symposium on Regional Cooperation in South Asia *February 1988*
15. Evaluating Rice Market Intervention Policies: Some Asian Examples *April 1988*
16. Improving Domestic Resource Mobilization Through Financial Development: Nepal *November 1988*
17. Foreign Trade Barriers and Export Growth *September 1988*
18. The Role of Small and Medium-Scale Industries in the Industrial Development of the Philippines *April 1989*
19. The Role of Small and Medium-Scale Manufacturing Industries in Industrial Development: The Experience of Selected Asian Countries *January 1990*
20. National Accounts of Vanuatu, 1983-1987 *January 1990*
21. National Accounts of Western Samoa, 1984-1986 *February 1990*
22. Human Resource Policy and Economic Development: Selected Country Studies *July 1990*
23. Export Finance: Some Asian Examples *September 1990*
24. National Accounts of the Cook Islands, 1982-1986 *September 1990*
25. Framework for the Economic and Financial Appraisal of Urban Development Sector Projects *January 1994*
26. Framework and Criteria for the Appraisal and Socioeconomic Justification of Education Projects *January 1994*
27. Guidelines for the Economic Analysis of Projects *February 1997*
28. Investing in Asia *1997*
29. Guidelines for the Economic Analysis of Telecommunication Projects *1998*
30. Guidelines for the Economic Analysis of Water Supply Projects *1999*

SPECIAL STUDIES, ADB (SS, ADB)

(Published in-house; Available commercially through ADB Office of External Relations)

1. Rural Poverty in Developing Asia
   Edited by M.G. Quibria
   Vol. 1: Bangladesh, India, and Sri Lanka, *1994*
   $35.00 (paperback)
   Vol. 2: Indonesia, Republic of Korea, Philippines, and Thailand, *1996*
   $35.00 (paperback)
2. External Shocks and Policy Adjustments: Lessons from the Gulf Crisis
   Edited by Naved Hamid and Shahid N. Zahid, 1995
   $15.00 (paperback)
3. Gender Indicators of Developing Asian and Pacific Countries
   Asian Development Bank, 1993
   $25.00 (paperback)
4. Urban Poverty in Asia: A Survey of Critical Issues
   Edited by Ernesto Pernia, 1994
   $20.00 (paperback)
5. Indonesia-Malaysia-Thailand Growth Triangle: Theory to Practice
   Edited by Myo Thant and Min Tang, 1996
   $15.00 (paperback)
6. Emerging Asia: Changes and Challenges
   Asian Development Bank, *1997*
   $30.00 (paperback)
7. Asian Exports
   Edited by Dilip Das, 1999
   $35.00 (paperback)
   $55.00 (hardbound)
8. Mortgage-Backed Securities Markets in Asia
   Edited by S.Ghon Rhee & Yutaka Shimomoto, 1999
   $35.00 (paperback)
9. Corporate Governance and Finance in East Asia: A Study of Indonesia, Republic of Korea, Malaysia, Philippines and Thailand
   J. Zhuang, David Edwards, D. Webb, & Ma. Virginita Capulong
   Vol. 1, 2000 *$10.00 (paperback)*
   Vol. 2, 2001 *$15.00 (paperback)*
10. Financial Management and Governance Issues
    Asian Development Bank, *2000*
    Cambodia *$10.00 (paperback)*
    People's Republic of China *$10.00 (paperback)*
    Mongolia *$10.00 (paperback)*
    Pakistan *$10.00 (paperback)*
    Papua New Guinea *$10.00 (paperback)*
    Uzbekistan *$10.00 (paperback)*
    Viet Nam *$10.00 (paperback)*
    Selected Developing Member Countries *$10.00 (paperback)*
11. Guidelines for the Economic Analysis of Projects
    Asian Development Bank, 1997
    $10.00 (paperback)
12. Handbook for the Economic Analysis of Water Supply Projects
    Asian Development Bank, 1999
    $15.00 (hardbound)
13. Handbook for the Economic Analysis of Health Sector Projects
    Asian Development Bank, 2000
    $10.00 (paperback)

SPECIAL STUDIES, OUP (SS,OUP)

(Co-published with Oxford University Press; Available commercially through Oxford University Press Offices, Associated Companies, and Agents)

1. Informal Finance: Some Findings from Asia
   Prabhu Ghate et. al., 1992
   $15.00 (paperback)
2. Mongolia: A Centrally Planned Economy in Transition
   Asian Development Bank, 1992
   $15.00 (paperback)
3. Rural Poverty in Asia, Priority Issues and Policy Options
   Edited by M.G. Quibria, 1994
   $25.00 (paperback)
4. Growth Triangles in Asia: A New Approach to Regional Economic Cooperation
   Edited by Myo Thant, Min Tang, and Hiroshi Kakazu
   1st ed., 1994 *$36.00 (hardbound)*
   Revised ed., 1998 *$55.00 (hardbound)*
5. Urban Poverty in Asia: A Survey of Critical Issues
   Edited by Ernesto Pernia, 1994
   $18.00 (paperback)
6. Critical Issues in Asian Development: Theories, Experiences, and Policies
   Edited by M.G. Quibria, 1995
   $15.00 (paperback)
   $36.00 (hardbound)
7. From Centrally Planned to Market Economies: The Asian Approach
   Edited by Pradumna B. Rana and Naved Hamid, 1995
   Vol. 1: Overview
   $36.00 (hardbound)
   Vol. 2: People's Republic of China and Mongolia
   $50.00 (hardbound)
   Vol. 3: Lao PDR, Myanmar, and Viet Nam
   $50.00 (hardbound)
8. Financial Sector Development in Asia
   Edited by Shahid N. Zahid, 1995
   $50.00 (hardbound)
9. Financial Sector Development in Asia: Country Studies
   Edited by Shahid N. Zahid, 1995
   $55.00 (hardbound)
10. Fiscal Management and Economic Reform in the People's Republic of China
    Christine P.W. Wong, Christopher Heady, and Wing T. Woo, 1995
    $15.00 (paperback)
11. Current Issues in Economic Development: An Asian Perspective
    Edited by M.G. Quibria and J. Malcolm Dowling, 1996
    $50.00 (hardbound)
12. The Bangladesh Economy in Transition
    Edited by M.G. Quibria, 1997
    $20.00 (hardbound)
13. The Global Trading System and Developing Asia
    Edited by Arvind Panagariya, M.G. Quibria, and Narhari Rao, 1997
    $55.00 (hardbound)
14. Rising to the Challenge in Asia: A Study of Financial Markets
    Asian Development Bank, 1999
    Vol. 1 *$20.00 (paperback)*
    Vol. 2 *$15.00 (paperback)*
    Vol. 3 *$25.00 (paperback)*
    Vols. 4-12 *$20.00 (paperback)*

SERIALS

(Co-published with Oxford University Press; Available commercially through Oxford University Press Offices, Associated Companies, and Agents)

1. Asian Development Outlook (ADO; annual)
   $36.00 (paperback)

2. Key Indicators of Developing Asian and Pacific Countries (KI; annual)
   $35.00 (paperback)

JOURNAL

(Published in-house; Available commercially through ADB Office of External Relations)

1. Asian Development Review (ADR; semiannual)
   $5.00 per issue; $8.00 per year (2 issues)